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Guarding Your Health In 1946



**WAITING FOR SMALLPOX VACCINATION
MARCH, 1946**

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Guarding Your Health In 1946

**A BRIEF REPORT
ON THE WORK OF
STATE AND LOCAL
HEALTH DEPARTMENTS**

WASHINGTON STATE DEPARTMENT OF HEALTH
ARTHUR L. RINGLE, M.D., C.P.H. Director

*Additional copies
of this pamphlet
may be obtained from*

WASHINGTON STATE DEPARTMENT OF HEALTH
1412 Smith Tower
Seattle 4

Cover photograph courtesy Seattle Post-Intelligencer

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What Is Public Health?

This booklet is a very brief summary of what your health department, and other local health departments like it all over Washington, did to protect your health and your neighbor's health last year. It also includes the activities of the State Department of Health.

All these health-protecting activities can be lumped together under the term "public health."

What is public health? There are many definitions.

One authority says: "*Public health is the art and science of preventing disease, prolonging life and promoting physical and mental happiness through organized community effort.*"

We like this definition better:

"The job of public health is to keep disease from your fireside, and help you live a longer, healthier life."

A Few Explanations About

State Board of Health

This is the oldest health-protecting agency in Washington. Set up by the 1890 Legislature, two years after Washington was admitted to the Union, it today consists of a panel of five persons, presided over by the State Director of Health. Its chief function is to draw up rules and regulations concerning health matters, which are then carried out by the State Health Department and local health departments.

State Department of Health

With headquarters in Seattle, the State Health Department consists of a team of specialists — physicians, nurses, and technicians. Their job is to help local health departments do their work better, through advice and consultation. They also offer services directly to the people through local health departments. They keep posted on the latest advances in preventive medicine, and map out the most important problems in the health field. These in turn are presented to local health officers, who make the final decisions and carry out the bulk of Washington's public health program.

Local Health Departments

In many states, local health departments are just branch offices of the state health department. This is not true in Washington. Each county, city or district health department is an independent organization, and each lays out its own program, and carries it out under the direction of the local health officer.

The real battles against disease are fought and won in a town or a county, not on a map in somebody's office. For this reason the State Health Department feels that each local health officer should have the greatest possible freedom of action.

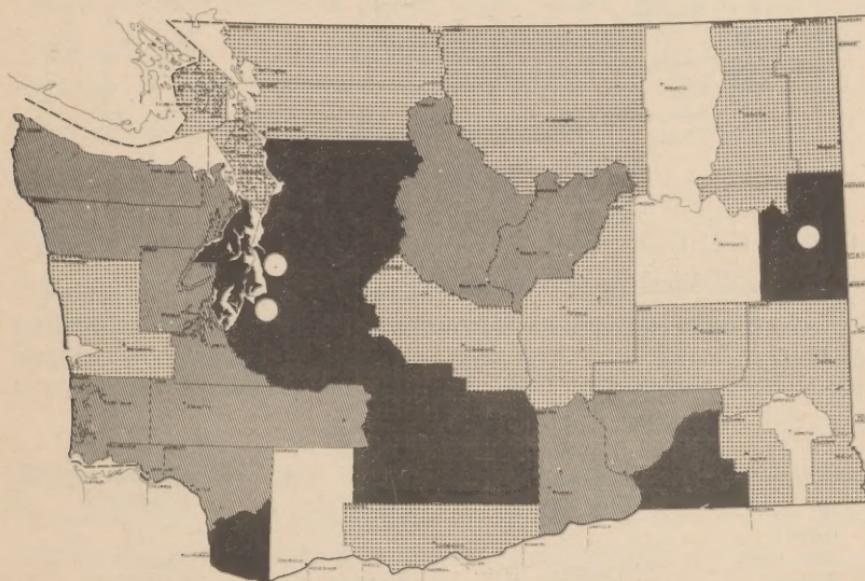
Washington has a wide range of local health departments. Some areas have wide-awake, active, aggressive full-time departments, with adequate staffs and budgets. In other areas there are only part-time health departments offering very limited services.

Who Works in Public Health

Experts are agreed that only full-time local health departments can do a satisfactory job. If the population in a city or county is too small to support a full-time staff, then it should combine with other cities or counties to form a full-time district health department.

The map below shows which areas received full-time health services last year. In 1946 there were 19 full-time health departments, serving 22 counties and the 3 largest cities.

Now - Full-Time Services for 22 Counties



Full-Time District Health Departments

Full-Time County Health Departments

Full-Time City Health Departments

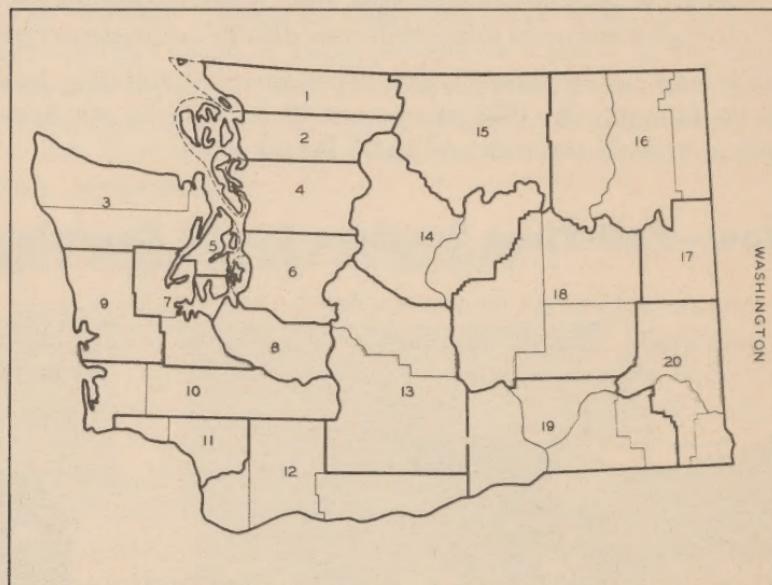
Part-Time County Health Officer
Full-Time Public Health Nursing

Part-Time County Health Officer
Part-Time Public Health Nursing

Part-Time County Health Officer
No Public Health Nursing Service

In a survey made by Haven Emerson, M.D., a top authority in this field, it was recommended that Washington have 20 district health departments, providing full-time health protection for all of the 39 counties. This is our eventual goal.

Proposed - Full-Time Services for All



By consolidating city and county units, a total of 20 full-time departments could give coverage to all 39 counties, according to a study by the American Public Health Association. Listed below are the counties in each proposed unit, with metropolitan cities in parenthesis:

1 Whatcom	7 Mason	12 Clark	17 Spokane (Spokane)
2 Island	8 Thurston	13 Klickitat	18 Adams
San Juan	Pierce (Tacoma)	14 Skamania	Grant
Skagit	9 Grays Harbor	15 Kittitas	Lincoln
3 Clallam	10 Lewis	16 Yakima	19 Benton
Jefferson	Pacific	17 Chelan	Columbia
4 Snohomish	11 Cowlitz	18 Douglas	Franklin
5 Kitsap	12 Wahkiakum	19 Okanogan	Walla Walla
6 King (Seattle)		20 Ferry	Asotin
		Pend Oreille	Garfield
		Stevens	Whitman

HEALTH DEPARTMENTS AT WORK

Since the staffs of full-time health departments in Washington vary from 200 in the largest cities to 5 or 6 in the smallest offices, this page will introduce the four main categories of public health workers. Larger departments have many people in these general fields — the smaller departments only one or two.

Health Officer — A physician with not only an M.D. degree, but a graduate degree in public health work. He does the work requiring a doctor's knowledge, and is the director of the entire department. It is essential that he be a full-time man, not a physician dividing his time with a private practice.

Public Health Nurse — A graduate nurse with special training in public health nursing. She is the connecting link between the health department and the home. It is she who helps the family care for the patient, and teaches them how to stay healthy.

Sanitarian — He sees that your water is pure, that restaurants are clean, that school buildings are healthful, that milk is pure, that rats are kept from garbage — in brief, that diseases are not spread through an unhealthful environment.

Secretary — She attends to the routine clerical duties of the department, and is responsible for vital statistics. In addition, as the receptionist for the department, she often plays an important part in the field of health education.

PUBLIC HEALTH NURSING

Public health nurses are the infantry in the battle against disease and death.

They visit the homes of the sick and the well — teaching the family how to stay healthy, or how to care for the sick.

About 280 of them serve all the people of the State as best they can — for there are many more jobs than there are public health nurses to fill them. They work in the most wild and remote areas, as well as the biggest cities. Their familiar blue uniforms and black bags are seen everywhere — farm houses, apartments, shacks, mansions — for wherever there are people there is work for the nurse.

During the war, public health nursing was severely handicapped by a shortage of trained public health nurses. Although 1946 brought some relief, the shortage is still holding back the nursing programs of many health departments. The greatest obstacle to getting enough nurses is the salary scales, which must be increased to be comparable with those in other fields of nursing.

The figures on the next page show the magnitude of the work done by nurses. But they don't show the drama. They don't show a baby born by the light of a flashlight wedged between two flower pots on a remote Puget Sound island. The "county nurse" was there.

They can't show a nurse teaching a worried mother how to care for a baby with scarlet fever.

They can't show her protecting a family against infection from a father with tuberculosis.

These figures show a great deal, but they don't show that it is the public health nurse who puts the health officer's medical knowledge into practice in the home.

Identified by her familiar blue uniform and black bag, the public health nurse helps rich and poor, sick and well, alike.



Public Health Nursing—1946

Public health nurses made 30,887 visits to homes where there were contagious diseases, caring for the sick and protecting the well. They helped while 360,354 smallpox vaccinations were given, and 50,178 immunizations for other diseases. They made 20,406 visits to homes where tuberculosis had struck.

Nurses made 5,636 visits to expectant mothers, and 4,744 visits after the babies were born. They made 7,858 visits to infants' homes, and 4,037 visits to preschool homes.

In the schools, 51,818 visits were made to the nurse's office. Nurses gave health talks to 16,010 children.

And in homes where illness had struck the public health nurse called 18,954 times to offer her help.

TUBERCULOSIS . . .

In 1946, Washington taxpayers paid out more than two and a quarter million dollars to keep tuberculosis patients in hospitals. By 1970, if we act today, we can practically wipe out this terrible expense. But it will cost us still more right now.

Since tuberculosis is a contagious disease, the first step is to find all the people with TB and segregate them under adequate medical care. In 1946, sanatorium care cost an estimated \$2,276,845 — about \$5.25 per patient per day. In the next two years sanatorium care will cost an estimated \$4,510,579.30.

However, even this large sum did not give us enough hospital care to wipe out TB. Six to seven hundred more beds must be provided to bring us up to that level. At present construction costs, this will require about \$12,000,000 more than is now available.

Tuberculosis takes a long time to cure. Chances for complete recovery are highest when it is discovered early. This is best done by taking a miniature chest X-ray of each person — ideally, one X-ray per adult per year.

With enough hospital beds and enough X-rays, this drain on the taxpayers' pockets can be eliminated within 30 years.

Patients in an overcrowded ward — Morningside Sanatorium.



an Expensive Enemy

TB Control in 1946

In preventing and curing tuberculosis, 38,006 large chest X-rays were made and interpreted. Miniature X-rays totaling 93,606 were taken by health departments. Public health nurses made 20,406 visits to the homes of TB patients. Eighty-eight clinics were held by State Health Department physicians, with 1,777 patients examined. Results: 2,480 new cases discovered.

A specialist interprets X-rays of tuberculosis patients.



HEALTH LABORATORIES

The laboratory is an essential tool of the modern public health worker. Many of the full-time local health departments have well-equipped, modern laboratories. Those which do not are served by the large laboratory of the State Department of Health.

Laboratories - 1946

In the laboratories of the State Health Department alone a total of 173,360 examinations were made. Here are a few of the major kinds of examinations in both state and local labs:

Water purity tests.....	16,176
Milk purity tests	14,483
Blood tests for syphilis.....	247,657
Tests for gonorrhea	12,717

A bacteriologist examining water samples for contamination.





Sampling the spinal fluid of a syphilis patient — Washington Infirmary.

VD IS STILL WITH US

Few people realize that the venereal diseases, syphilis and gonorrhea, are serious peacetime as well as wartime problems.

During 1946, 4,546 cases of gonorrhea were reported to the State Health Department — outnumbered only by measles and chickenpox. Syphilis cases reported totaled 2,323. By no means are all cases reported.

Untreated syphilis may result in insanity, blindness and death. A large fraction of patients in mental hospitals are syphilis victims. Untreated gonorrhea may result in sterility, blindness or death.

Gonorrhea patients are now treated in clinics in 8 hours, with penicillin. Many syphilis patients are sent to the Washington Infirmary, near Everett, for a 10-day course of penicillin treatments.

VD Control — 1946

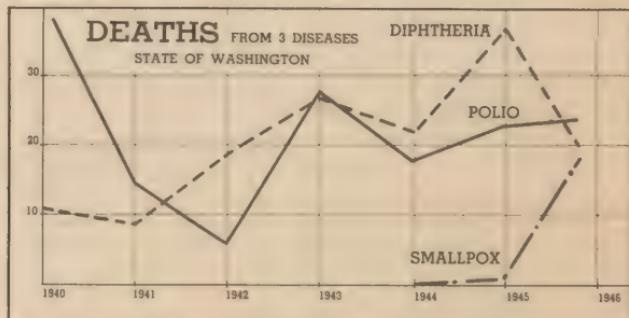
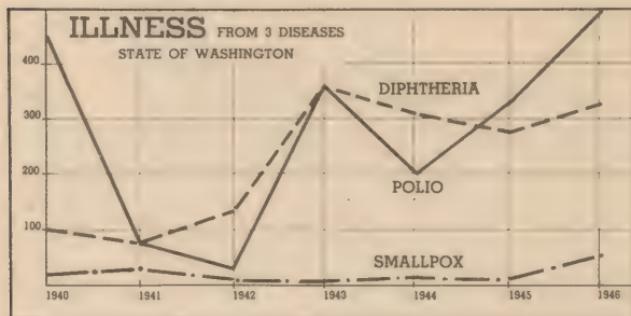
*Patients made 50,337 visits to VD control clinics.
The Washington Infirmary treated 1,199 syphilis victims.*

Fighting Contagious

Fighting contagious diseases — those that are passed from a sick person to a well person — is the oldest function of public health. It is also the field in which some of the most notable achievements have been made. Right here in Washington, since 1910, tuberculosis has dropped from the first leading cause of death to the sixth. Typhoid fever, another top-ranking killer at the turn of the century, was responsible for only 3 deaths in 1946.

There are about 50 contagious diseases common to Washington, ranging from chickenpox and measles, rarely fatal, to tuberculous meningitis, almost always fatal. Below is a brief description of a few contagious diseases that are the most important public health problems:

Poliomyelitis (Infantile Paralysis) — More than 500 polio cases were reported in 1946, making it the worst year since 1934 in Washington. Polio is a perplexing problem because the way in which it is spread is not definitely known. Consequently, the emphasis must be on treatment rather than prevention. Much improvement has



Diseases with Science

been made in polio treatment in recent years, and only about one-fourth of its victims now suffer any permanent crippling effects.

Smallpox made headlines in 1946. For the previous five years only a handful of cases were reported, with no deaths. In February a soldier at a military hospital exposed a woman patient to a particularly potent strain of Oriental smallpox he had brought from Japan. Because of inadequate isolation facilities, the disease spread to Seattle, Everett and Port Angeles, infecting 65 persons. Twenty of them died. About 500,000 were vaccinated as a result of the epidemic.

This entire tragedy could have been prevented by the universal use of smallpox vaccine.

Diphtheria is another disease that can be prevented by immunization. It is a serious illness, and until recently has been confined chiefly to children. In recent years it has been found with increasing frequency among adults.

An epidemiologist must track down the source of disease.





An orthopedic surgeon examines the spine of a young patient.

HELP FOR CRIPPLED CHILDREN

It would be a crime indeed if we allowed children with crippling conditions to grow up without benefit of the best corrective treatment possible. This is the job of the Crippled Children's Program, now in its tenth year.

The State Department of Health, in cooperation with the medical profession, holds orthopedic clinics throughout the State, where orthopedic surgeons examine the children and recommend treatment. The family then pays for as much of the treatment as it can afford—and the Crippled Children's Program pays the rest.

Crippled Children's Services—1946

In clinics held throughout the State 1,143 children were examined. Treatment was provided for 764 children. Shortest stay in the hospital was 1 day, the longest 365 days.

HEALTH FOR MOTHERS AND CHILDREN

Children are one of the focal points of health department work. Mothers must know how to care for the baby before he arrives, and in the crucial first years of his life. Children must have health examinations. All children must be protected from contagious diseases. These are some of the major responsibilities of the public health nurse. Statistical records of this work are on Page 9.

A Gift to G.I.'s from a Grateful State

Under the Emergency Maternity and Infant Care Program, Washington has presented more than 3,000 babies to servicemen in the four lowest pay grades—with all doctor and hospital bills paid. More than a thousand doctors and almost 100 hospitals participated. In 1946, 6,486 servicemen's families were enrolled for care.

*A former
A.A.F. sergeant
and his
three children,
all born
under E.M.I.C.*



BETTER MENTAL HEALTH

For every person in bed in a general hospital in Washington, there is a person in a mental hospital bed. Most people in general hospitals get well and go home. The people in mental hospitals stay for years—producing little or nothing, living at taxpayers' expense.

It costs about \$40,000 to hospitalize a mental patient for life. About 450 patients were treated in mental hygiene clinics in 1946. If only 2 of these patients were saved from lifetime commitment to a mental hospital, the program will have paid for itself.

Mental hygiene is a new field. The State Health Department now operates one full-time guidance clinic in Seattle, and a part-time clinic in Tacoma. More are planned as funds and personnel become available. The emphasis is on the problems of children, since that is the most profitable field for prevention and correction.

Children are the most profitable field for mental hygiene.





Children need much more dental care than they now get.

Dental Health A Problem

Dental hygiene is a still-unsolved public health problem. It is an undisputed fact that 80 to 90 per cent of children in Washington need dental care—yet most of dentists' time is spent on adult patients.

There are not enough dentists to take care of the children—or all the adults, for that matter.

The first emphasis of public health dentistry is on preventive and corrective work among children. In 1946¹ 903 people—chiefly children—were treated at the few dental clinics operated by local health departments.



Sampling acid mist in a shipbuilding plant.

HEALTH FOR INDUSTRY

As Washington's industries grow in size and number, the job of preventing occupational diseases becomes more important.

New manufacturing processes have introduced many "mysterious new chemicals." Are they dangerous to health? What measures must be taken to safeguard the men and women who work with them? Answers to these questions are furnished by the skilled industrial hygiene technicians of the State Department of Health, in cooperation with the State Department of Labor and Industries.

Industrial Hygiene - 1946

Industrial hygiene specialists including nurses, doctors and engineers, studied conditions in 193 plants, with 99,549 employes. Conditions were inspected in about 200 labor camps.

SANITARY ENGINEERING

The gratifying victories over typhoid fever—and many other diseases—are in no small part due to the work of the engineer and sanitarian. It is their job to see that villages towns and cities have clean pure water, and that their sewage and garbage disposal is not a menace to health.

Plans for every change in water works or sewage disposal systems are reviewed by engineers of the State Department of Health to see that they conform to modern engineering methods. The Department works with the Pollution Control Commission to eliminate harmful pollution of our waterways.

In addition, these engineers and sanitarians make periodic checks of the operation of water and sewage works, to see that high standards of efficiency are maintained and the public's health protected.

Thanks to the work of these men, no outbreak of typhoid fever has been traced to a public water supply in many years.

Engineers sampling water at a chlorination plant.



SANITATION . . . Key

The Sanitarian

The modern sanitarian is a versatile teacher who has but one objective — to teach people how to do everyday things in a sanitary way.

He must know how to wash a dish; how to build a septic tank, how to measure the light in a classroom, how to fumigate safely, how to kill rats, how to keep the germs out of milk, how to use DDT, and a host of other technical jobs. He is an inspector, guarding your health through continuous checkups—but more than that, he is a teacher. He teaches people first *why* sanitation is necessary, and then he teaches *how* to achieve it.

In the larger health departments, special sanitarians are assigned to specific programs. But in the main, the "general sanitarian," like the general medical practitioner, takes the advances from the laboratory into the home.

Mapping out strategy in a rat-control campaign.



stone of Modern Public Health

Sanitation Services—1946

Sanitarians made 46,008 inspections of eating and drinking places. They made 14,712 visits to dairy farms and pasteurizing plants. They inspected installation of 3,750 new septic tanks. They answered 30,359 requests for services on private premises. They made 4,589 checks of public water supplies.

Special Sanitation Programs

Two large specialized programs in sanitation were carried out by State Health Department personnel in 1946:

Rodent control—Rats and wild rodents, in addition to being a source of economic damage, are a menace to health. Many local health departments have rat-control crews. The State Health Department's rodent-control crew works with these departments in a continuous fight to keep down the rat population, through rat-poofing buildings and rat extermination.

*The sanitarian
is a familiar
caller at most
milk pasteur-
izing plants.*





Examining clams in the new laboratory truck.

Rats and wild rodents carry plague. If a number of plague-infested rats are at large, the plague may spread to humans. The State rodent-control crew maintains constant vigilance for signs of plague among rats. If it is found, an intensive extermination campaign is started at once.

Shellfish sanitation—Everyone knows that clam and mussel poisoning is swift and often fatal. To guard Washingtonians against this poisoning, and to see that all shellfish on the commercial market are taken from clean waters and handled in a sanitary manner is the responsibility of the shellfish sanitation program.

In 1946, a laboratory truck was purchased, to examine shellfish specimens and growing areas. This mobile laboratory is essential in checking the pollution condition in areas where clams, oysters, crabs, and other shellfish are taken.

Teaching Health to All

Medical knowledge, old and new, is useless until it is brought to the people. People must know what they can do to keep themselves healthy—and they must know when to see their doctors.

This is the broad field of health education. It is accomplished in many ways. When sanitarians and nurses visit a home, they are health educators. Newspapers, radio, the movies, pamphlets—these are other important tools of health education.

Several larger health departments have special health educators, trained in public health, to carry the message of healthier living to their communities. Smaller departments are aided by the Health Education Section of the State Department of Health.

Films are an important aid in health education.



The Stork's Scorekeeper

Every time a child is born, or a citizen dies, it is essential that an accurate record be made for public reference. In 1946, about 48,000 birth and 22,000 deaths went into the records of the Public Health Statistics Section.

From these voluminous records, some dating back to pioneer days, are drawn the figures for the U. S. Census Bureau in Washington. They also serve a more immediate purpose. What will be the load of a kindergarten five years from now? What are the leading causes of death? Is this woman a citizen of the United States? Public health statistics give the answers.

Statistics - 1946

Approximately 48,000 births and 22,000 deaths recorded. Certified copies of 47,618 birth and death records issued.

Original birth and death records are kept in a vault.



The Hospital Situation

Washington is still a long way from having enough hospital beds to provide good care, nearby, for all its citizens. Nine entire counties, with a population of 58,000, are without any general hospital at all. Some of the existing hospitals are antiquated, insanitary firetraps. Rural areas do not have service comparable to that available in the cities.

But hospitals are expensive to build, and expensive to run. After the last war, scores of new hospitals were built with more enthusiasm than foresight. This time there must be better planning, so that new hospitals do not become liabilities—or ghosts.

During 1946, the State Health Department's Hospital Survey crew completed an inventory of the existing hospitals. It is now working on a state-wide plan for hospital expansion. It will recommend construction or expansion of a few strategically located hospitals that will help bring us closer to our needs. A small amount of federal aid may be available, but the bulk of the hospitals must be built through private and community financing.

Hospital administrators have been cooperative.



Guarding Children's Hearing

The victims of deafness or hearing loss do not become ill or die. They may, however, fail to become useful citizens—and they may be very lonely.

About three per cent of school children have a significant hearing loss. The State Health Department's Conservation of Hearing Section is seeing that these children are discovered promptly, put under medical care, and given the special education they may need. This is to be accomplished through cooperation of school authorities, the medical profession, and local health departments.

In most cases, something *can* be done about the tragedy of impaired hearing. Medical care, lip-reading, hearing aids, special education—all help to bring the hard-of-hearing youngster to realize his own capabilities as a useful citizen.

Even first-graders can take modern hearing tests.



Public Health in Washington

A Summary for 1946

Washington emerged from the war quite a different state from the Washington of 1941—her population swelled by half a million, her industries larger and more productive than ever before.

These developments had their effect on peacetime health problems during 1946.

A larger population and an increasing birthrate have shown that we must have more and better hospital service. They also mean we must have better child-health and school-health programs.

More large industrial plants have increased needs in the field of industrial hygiene, the science of keeping workers healthy.

The war set the control of tuberculosis back ten years. Today there are long waiting lists at almost every TB sanatorium. This means that people with active tuberculosis have the opportunity to spread it to those in contact with them. More TB hospital beds are needed at once, or we will lose even more of the precious ground we have gained.

The many advances in fighting childhood diseases mean the average man now lives longer. Cancer, primarily a disease of older people, has become the second leading cause of death. A cancer-control program was inaugurated in 1946.

Poliomyelitis—another disease about which our medical knowledge is still incomplete—visited more than 500 Washington homes last year.

Despite these problems, Washington fared well in most health matters. Our birth rate, infant and maternal deaths, and death rate were better than the national average. Most of the problems above are common to public health in all states.

Washington did a better-than-average job in public health last year. There is still plenty of room for improvement.

What Does It Cost?

Public health costs money.

In looking through the pages of this booklet you have gotten some idea of the tremendous job that health departments are doing now. You know that it takes a lot of health officers, public health nurses, engineers, sanitarians, laboratory workers and other technically-trained people to carry out the war against disease.

By reading this pamphlet you also know that there are still shortcomings in the work health departments are doing to protect your health. To do a 100 per cent job will require more trained people, more money and more time.

The full budgets for the 1947-49 biennium are included in official state publications, and are not reproduced here. Instead, reduced to simplest terms, here is the cost *per person per year*.

These figures are derived by taking one-half of each two-year budget and dividing it by the State's population.

The Cost Per Person

for Operation of State and Local Health
Departments

	1945-6	1947-8
From the State of Washington	.33c	.50c
From the Federal Government	.25c	.42c
From Local Governments	.90c	\$1.01

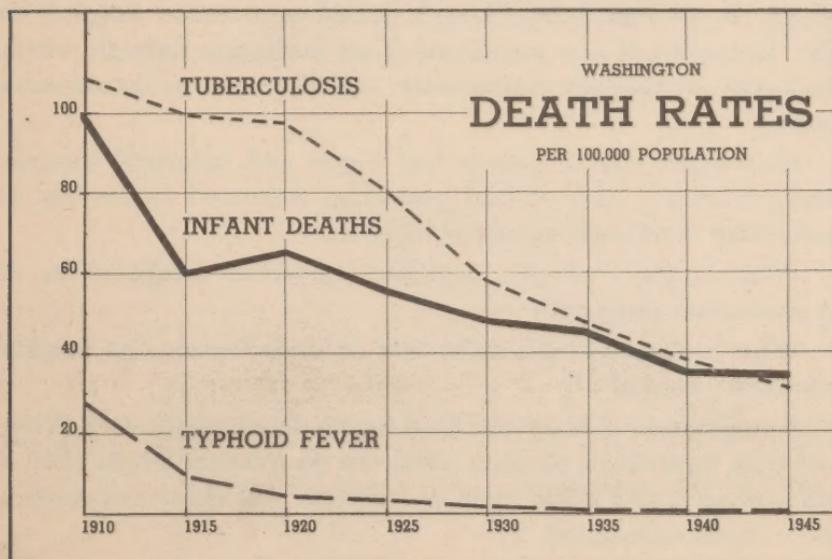
What Is It Worth?

Public health pays dividends.

One of the best yardsticks to the general health level of a place is the number of children who die under one year of age, as shown on the graph below. This figure reflects the medical and hospital care available, the general standards of sanitation, and many other factors. The infant death rate is shown on the graph below. It shows a steady and gratifying reduction with each year. So do the death rates for typhoid fever and tuberculosis, two other important public health problems.

Of course we don't claim that public health alone is responsible for the decline in these rates. Scientific and medical advances played an important part in reducing these unnecessary deaths. But they are as satisfactory evidence as can be found of the dividends paid when certain disease and conditions are attacked as a problem that concerns all of us — not just each of us individually.

Public health pays financial dividends, but its most important reward is people — people who lived because the things that might have killed or incapacitated them were prevented.



Public Health Is An Investment

Money spent for public health is not an expenditure—it is an investment. It costs less to prevent disease than it does to fight it.

The dividends of preventive medicine lie first of all in people. The sight of a little girl stricken with diphtheria, or the head of a family of five in a tuberculosis sanitorium, are reminders of the human rewards that lie in preventing disease.

But these dividends can also be shown in dollars.

What does it cost the taxpayers to put the head of a family in a tuberculosis hospital? About \$157.50 a month. How long must he remain? That depends on how far advanced the TB is. If it is early TB, he may be back with his family in a matter of months. Early detection is promoted through mass X-ray surveys. A miniature chest X-ray costs less than 50c.

What if he has advanced TB? His stay will probably be measured in years—at \$157.50 or more a month. Perhaps he can pay for the first few months—perhaps not. But the cost does not stop there. What of the wages he is not earning—the taxes he is not paying? If he is an average man, his family will soon need welfare grants.

Preventing tuberculosis is one striking example. There are others. It costs \$40,000 to keep a person in a mental hospital for life. Keeping just one person out of an institution through mental treatment, or through curing early syphilis, saves us considerable money.

How much does it cost in lost wages and industrial compensation to treat a case of lead poisoning, compared to the cost of preventing it through industrial hygiene?

What is the cost of a smallpox epidemic, compared to an immunization program?

What is the cost of a baby lost at birth because no hospital was near enough?

For operation of State and local health departments, each Washingtonian paid about \$1.23 in 1946. To do a better job in 1947, it will cost us a few cents more per person. It's cheap insurance—and a sound investment.

